

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CIII.

A NEW GENUS, AYAPANOPSIS.

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A new genus, Ayapanopsis, is described here for a series of primarily Andean species with habit and carpopedial structure as in Ayapana and Polyanthina but with smooth style branches and only 50-100 flowers per head. Leaves of most species have short or narrowly winged petioles with prominent cuneate bases of the leaf blades, and carpodia of all species show the characteristic evenly thickened walls and greatly enlarged basal tier of cells found in the related genera. Some species of Ayapanopsis have numerous hairs on the styler node, a feature not found in the related Andean genera.

The new genus is the predominant representative of the Ayapanoid series in the region of Peru and Bolivia where only single species of Ayapana, Polyanthina and Hetercondylus are found. The geographic distribution of the genus as well as the various characteristics of the style suggest an intermediate position of Ayapanopsis in the Ayapanoid series between the primarily northern and the primarily Brazilian genus complexes.

Ayapanopsis R.M.King & H.Robinson, genus novum Asteracearum (Eupatorieae). Herbae vel frutices erecti paucè ramosi. Caules teretes pubescentes vel subglabri. Folia opposita distincte vel indistincte petiolata, petiolis saepe alatis, laminis ellipticis vel cordatis ad apicem acutis vel acuminatis. Inflorescentiae corymboso-paniculatae, pedicellis brevibus vel elongatis. Involucri squamae 30-50 subimbricatae 3-4-seriatae valde inaequilongae anguste oblongae vel lanceolatae; receptacula leniter convexa glabra vel minute pilosa pustulata. Flores 35-150 in capitulo; corollae anguste infundibulares, lobis longe triangularibus extus plerumque glanduliferis saepe setiferis; filamenta in parte superiore elongata, cellulis quadratis vel longioribus, parietibus annulate ornatis, appendices $2/3$ - $1\frac{1}{2}$ longiores quam latiores; styli inferne valde nodulosi glabri vel dense hirsuti,

appendicibus linearibus sublaevibus vel mamillosis; achaenia prismatica vel fusiformia pauce vel dense setifera aliquantum glandulifera; carpopodia magna valde distincta breviter cylindrica, cellulis basilibus magnis angustatis, superioribus parvis rotundatis vel subquadratis 2-6-seriatis; parietibus incrassatis; pappus setiformis uniseriatus, setis 15-40 scabris ad apicem vix angustioribus; cellulis apicalibus acutis vel subacutis.

Species typica: Eupatorium latipaniculatum Rusby

Our studies of the genus indicate that it contains the following 13 species.

Ayapanopsis adenophora R.M.King & H.Robinson, sp. nov.

Herbae vel suffrutices erecti pauce ramosi.

Caules, petioli, costae abaxiales laminarum, pedicelli et involucri squamae exteriores distincte glanduliferae, glandulis plerumque longistipitatis, cellulis capitularum numerosis multiseriatis. Folia longipetiolata, petiolis 2-3 cm longis superne sensim late alatis, laminis 4-8 cm longis 1.5-3.5 cm latis ovatis leniter acuminatis crenato-serratis base acutis utrinque puberulis; folia basilaria majora, petiolis usque ad 15 cm longis, laminis usque ad 20 cm longis 12 cm latis. Inflorescentiae laxae longe ramosae, ramis paniculatis, pedicellis ultimis 1-3 cm longis. Capitula ca. 1 cm alta; involucri squamae 30-35 virides 5-seriatae 2-8 mm longae 0.5-1.0 mm latae anguste acutae extus striatae plerumque parce puberulae et glanduliferae; receptacula minute pilosa. Flores ca. 40 in capitulo; corollae ca. 7 mm longae viridialbae inferne tubulares superne sensim breviter infundibulares, lobis aequaliter triangularibus extus glanduliferis; filamenta antherarum in parte superiore ca. 350 μ longa, parietibus distincte ornatis, appendices ca. 1 $\frac{1}{2}$ longiores quam latiores; styli inferne glabri; achaenia ca. 2.5 mm longa inferne glabra superne setifera; carpopodia ca. 300 μ lata 250 μ alta, cellulis basilibus 50-100 μ altis, cellulis superioribus 6-8-seriatis plerumque subquadratis 12-25 μ longis et latis; pappi setae ca. 35 ad apicem aliquantum vix dilatatae acutae. Grana pollinis 20-22 μ diam.

Type: BOLIVIA: Hacienda Casana sobre el camino a Tipuani. 26 IX 1922, Altura sobre el mar 1400 m. Dr. Otto Buchtien 7540 (Holotype US!).

The new species is most distinctive in the numerous long-stalked glands on the vegetative parts.

Ayapanopsis andina (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium andinum B.L.Robinson, Contr. Gray Herb. n.s. 77: 9. 1926. Peru.

Ayapanopsis didyma (Klatt) R.M.King & H.Robinson, comb. nov. Eupatorium didymum Klatt, Ann. Naturhist. Wien 9: 356. 1894. Bolivia.

Ayapanopsis esperanzae (Hass.) R.M.King & H.Robinson, comb. nov. Eupatorium esperanzae Hass., Fedde Rep. Spec. Nov. 11: 170. 1912. Paraguay.

Ayapanopsis euphyes (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium euphyes B.L.Robinson, Contr. Gray Herb. n.s. 68: 16. 1923. Bolivia.

Ayapanopsis garcia-barrigae R.M.King & H.Robinson, sp. nov. Herbae erectae 2 m altae. Caules subglabri rubescentes. Folia subsessilia, petiolis brevibus alatis, laminis 10-15 cm longis 2.5-3.5 cm latis elliptico-lanceolatis acuminatis margine argute serrulatis base longe cuneatis utrinque glabris supra in nervis puberulis. Inflorescentiae laxae late ramosae, pedicellis ultimis 1-2 cm longis glanduliferis. Capitula ca. 6 mm alta; involucri squamae 35-40 fulvae 1.5-5.0 mm longae 0.7-1.0 mm latae ad apicem anguste obtusae extus minute striatae glabrae. Flores ca. 42 in capitulo; corollae 3.0-3.5 mm longae rubrae inferne tubulares superne sensim breviter infundibulares, lobis brevibus late triangularibus extus pauce breviter setiferis et glanduliferis; filamenta antherarum in parte superiore ca. 350 μ longa, parietibus vix ornatis, appendices ca. 2/3 breviores quam latiores; styli inferne glabri; achaenia ca. 2 mm longa fere glabra in parte superiore pauce setifera; carpodia ca. 300 μ late 250 μ alta, cellulis basilaribus 50-100 μ altis, cellulis superioribus 4-seriatis plerumque oblongis vel rotundatis 20-40 μ longis ca. 20 μ latis; pappi setae 35-40 ad apicem vix angustiores argute acutae. Grana pollinis ca. 20 μ diam.

Type: COLOMBIA: Narino: Barbacoas, Corregimiento

Santander (Buenavista) a Barbacoas (Vertiente del rio Telembi); alt. 840-200 m., Agosto 3-5, 1948, H. Garcia-Barriga 13123 (Holotype US!).

The new species is distinctive by the sessile leaves, by the short throats on the corollas, by the short corolla lobes bearing stout short setae and by the rather short anther appendages. The corolla lobes are composed of small quadrate cells and many of the setae on the outer surface have cells in two rows.

Ayapanopsis latipaniculata (Rusby) R.M.King & H.Robinson, comb. nov. Eupatorium latipaniculatum Rusby, Bull. N.Y. Bot. Gard. 4: 380. 1907. Bolivia.

Ayapanopsis mathewsii (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium mathewsii B.L.Robinson, Proc. Amer. Acad. 55: 23. 1919. Peru.

Ayapanopsis tarapotensis (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium tarapotense B.L.Robinson, Proc. Amer. Acad. 55: 37. 1919. Peru.

Ayapanopsis triosteifolia (Rusby) R.M.King & H.Robinson, comb. nov. Eupatorium triosteifolium Rusby, Bull. N.Y. Bot. Gard. 4: 379. 1907. Bolivia.

Ayapanopsis trixioides (Baker) R.M.King & H.Robinson, comb. nov. Eupatorium trixioides Baker, Mart. Fl. Bras. 6(2): 311. 1876. Brazil.

Ayapanopsis tucumanensis (Lillo & B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium tucumanense Lillo & B.L.Robinson, Contr. Gray Herb. n.s. 90: 32. 1930. Argentina.

Ayapanopsis vargasii R.M.King & H.Robinson, sp. nov.
Suffrutices erecti paucè ramosi. Caules virides minute purpureo-puberuli. Folia distincte petiolata, petiolis 1.0-2.5 cm longis lata alatis, laminis 7-13 cm longis 1.5-3.5 cm latis lanceolatis longe acuminatis subserrulatis base acutis subtus concoloris vel

purpureis utrinque minute puberulis. Inflorescentiae 45° patentes, ramis paniculatis puberulis et pauce glanduliferis, pedicellis ultimis 2-15 longis dense puberulis. Capitula 6-7 mm alta; involucri squamae 30-35 virides vel rubro-tinctae 2-6 mm longae 0.5-1.0 mm latae ad apicem anguste acutae extus striatae exteriores puberulae. Flores ca. 47 in capitulo; corollae 2.5 mm longae albae vel parum roseo-albae inferne tubulares superne anguste infundibulares, lobis longe triangularibus $1 \frac{1}{3}$ longioribus quam latioribus extus glanduliferis; filamenta antherarum in parte superiore ca. 200 μ longa, parietibus leniter ornatis, appendices ca. $1 \frac{1}{3}$ longiores quam latiores; styli inferne glabri; achaenia ca. 1.8 mm longa inferne glabra superne dense glandulifera et setifera, stipitibus glandularum aliquantum brevibus leniter scleroideis; carpopodia ca. 250 μ lata 175 μ alta, cellulis basilaribus 45-50 μ altis, cellulis superioribus 4-5-seriatis plerumque subquadratis 15-20 μ longis et latis; pappi setae ca. 30 ad apicem vix angustiores argute acutae. Grana pollinis 20-25 μ diam.

Type: PERU: Cuzco: Quispicanchis: Maniri, Dec. 8, 1962, C. Vargas C. 14061 (Holotype US!). Additional specimen PERU: Cuzco: Paucartambo: Tananayo, June 1966, C. Vargas C. 17463 (Paratype US!).

The new species seems closest to A. latipaniculata and A. tucumanensis which also have achenes with many short stalked glands with or instead of the usual setae. Both of the related species differ from A. vargasii by the prominent hairs on corolla lobes and by the hairs on the stylar node.

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